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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,579	11/21/2000	Curtis E. Jutzi	042390.P9907	2132

8791 7590 09/21/2004

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EXAMINER

VU, NGOC K

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 09/21/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/717,579

Applicant(s)

JUTZI, CURTIS E.

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4-15, 18-29, 32-43 and 46-55 are rejected under 35 U.S.C. 102(e) as being anticipated by Gangitano (U.S. 6,580,452 B1).

Regarding **claim 1**, Gangitano teaches an apparatus comprising:

a digital television receiver (tuner/decoder 30) to receive a digital television broadcast signal (receiver 30 receives a satellite television signal), the digital television broadcast signal including a data test stream having a plurality of data packets (it is noted that the satellite television signal includes data stream having a plurality of data packets), and

a service level determiner (22) to determine a service level of the digital television broadcast signal based upon a loss of data packets from the data test stream (detector 22 determines a signal strength of the satellite television signal. It is noted that the signal strength is determined by the received data packets from the data stream. That is the more loss of data packets, the lower signal strength is indicated) and to

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cause the service level to be displayed (the signal strength display is displayed on the screen as shown in figure 5) (see figures 4-5 and col. 2, lines 45-50 and 56-65).

Regarding **claim 15**, Gangitano teaches a method comprising:

receiving a digital television broadcast signal that includes a data test stream having a plurality of data packets (receiving a satellite television signal. It is noted that the satellite television signal includes data stream having a plurality of data packets);

determining a service level of the digital television broadcast signal based upon a loss of data packets from the data test stream (determining a signal strength of the satellite television signal. It is noted that the signal strength is determined by the received data packets from the data stream. That is the more loss of data packets, the lower signal strength is indicated); and

displaying the service level (displaying the signal strength as shown in figure 5) (see figures 4-5 and col. 2, lines 45-50 and 56-65).

Regarding **claim 29**, Gangitano teaches a machine-readable medium having stored thereon instructions (software program), which when executed by a processor (36), causes the processor to perform the following:

receiving a digital television broadcast signal that includes a data test stream having a plurality of data packets (receiving a satellite television signal. It is noted that the satellite television signal includes data stream having a plurality of data packets);

determining a service level of the digital television broadcast signal based upon a loss of data packets from the data test stream (determining a signal strength of the satellite television signal. It is noted that the signal strength is determined by the received data packets from the data stream. That is the more loss of data packets, the lower signal strength is indicated); and

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displaying the service level (displaying the signal strength display as shown in figure 5) (see figures 4-5 and col. 2, lines 45-50 and 56-65; col. 5, lines 31-36).

Regarding **claim 43**, Gangitano teaches a system comprising:

a set-top box (14) including,

a digital television receiver (tuner/decoder 30) to receive a digital television broadcast signal, the digital television broadcast signal including a data test stream having a plurality of data packets receiving a satellite television signal. It is noted that the satellite television signal includes data stream having a plurality of data packets), and

a service level determiner (22) to determine a service level of the digital television broadcast signal based upon a loss of data packets from the data test stream and to cause the service level to be displayed (determining a signal strength of the satellite television signal. It is noted that the signal strength is determined by the received data packets from the data stream. That is the more loss of data packets, the lower signal strength is indicated); and

a display device (20) to display the digital television broadcast signal and the service level (displaying satellite television signal and signal strength display – see figure 5) (see figures 4-5 and 7; col. 2, lines 45-50 and 56-65).

Regarding **claims 4, 18, 32 and 46**, Gangitano teaches that wherein the service level determiner (22) measures a number of data packets of the data test stream received by the digital television receiver (14) over a predetermined interval (may be any time period) (It is noted that the signal strength is determined by a quantity of the received data packets from the data stream – see figures 4-5 and col. 2, lines 45-50 and 56-65).

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Regarding **claims 5, 19, 33 and 47**, Gangitano teaches that wherein the service level determiner (22) determines a data packet loss percentage value for the data test stream by calculating a ratio of the measured number of data packets received by the digital receiver and a number of data packets that should have been received by the digital receiver (Figure 5 shows a Signal Strength Display having plurality of bars 24. The number of shaded bars indicates the percentage of data packets received. Thus, the remaining number of bars that are not shaded indicates the percentage of data packets that are loss. In order to show the shaded bars on the Signal Strength Display, the percentage of the received data packets may be determined by the Signal Strength Detector 22, thereby the percentage of data package that lost is also determined - see figure 5 and column 3, lines 23-33).

Regarding **claims 6, 20, 34 and 48**, it is inherent that the service level determiner (22) maps the data packet loss percentage value of the data test stream into a service level diagnostic (signal strength diagnostic).

Regarding **claims 7, 21, 35 and 49**, figure 5 shows a display device (20) to display a service level diagnostic indicator (24) based upon the service level diagnostic (signal strength diagnostic) to indicate the service level of the digital television broadcast signal.

Regarding **claims 8, 22, 36 and 50**, figure 5 shows a display device (20) to display a service level diagnostic indicator (24) based upon the loss of data packets from the data test stream to indicate the service level of the digital television broadcast signal.

Regarding **claims 9, 23, 37 and 51**, figure 5 shows the service level diagnostic indicator is a bar shaped meter indicating a service level range from 0% to 100%.

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Regarding **claims 10, 24, 38 and 52**, figure 5 shows the service level diagnostic indicator (24) is updated at predetermined intervals (the predetermined interval may be any period of time).

Regarding **claims 11, 25, 39 and 53**, figures 4 and 5 show the display device is a television.

Regarding **claims 12, 26, 40 and 54**, it is inherent that the satellite television signal is communicated from a headend or provider.

Regarding **claims 13, 27, 41 and 55**, Gangitano discloses that the satellite television signal is communicated via a satellite network (10) (see figure 3).

Regarding **claims 14, 28 and 42**, figure 4 shows the service level determiner (22) is implemented with a set-top box (14).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, 16, 17, 30, 31, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gangitano (U.S. 6,580,452 B1) in view of Mao et al. (U.S. 6,459,427 B1).

Regarding **claims 2, 3, 16, 17, 30, 31, 44 and 45**, Gangitano does not explicitly disclose the satellite signal includes an Internet Protocol (IP). However, Mao discloses a

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digital TV receiver for receiving Internet data over digital broadcast TV network.

Basically, the data and control information can be carried over MPEG-2 transport streams. The HTML pages and their control map information are either mapped directly onto the sections of the MPEG-2 transport stream or mapped through an intermediate layer such as UDP/IP and then encapsulated in the sections of the MPEG-2 transport stream. Mao further discloses that on the client side, a control block 240 allows the consumer to navigate 250 according to particular protocols 260, for example, UDP, and/or IP 270 (see abstract; col. 6, lines 7-12; col. 7-8, lines 63-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gangitano by providing IP data with MPEG-2 transport streams as disclosed by Mao in order greatly desired to provide Internet service with the television program to the consumer over digital broadcast TV network.

Further regarding **claims 3,17, 31 and 45**, Gangitano discloses providing satellite television signal (see abstract). It is noted that the satellite signal includes a packet identifier (PID) in each packet of a stream. Mao further discloses the MPEG-2 is segmented and carried over MPEG-2 transport packets, which can be filtered through the PID (packetID) by the decoder (see Mao: col. 8, lines 5-8).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Radha et al. (US 6,700,893 B1) disclose a system and method for controlling the delay budget of a decoder buffer in a streaming data receiver.

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Citta et al. (US 5,574,509 A) disclose a system for a digital television receiver includes a graphics generator for receiving an error signal input and developing an on-screen signal quality display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 703-306-5976. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ngoc K. Vu
Examiner
Art Unit 2611

September 17, 2004